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THE

# MEDICAL USE OF ALCOHOL;

AND

## Stimulants for Women.

BY

JAMES EDMUNDS, M.D.,

Member of the Royal College of Physicians of London, Member of the Royal  
College of Surgeons of London, Late Senior Physician to the  
British Legion Hospital, Senior Physician to the Lon-  
don Temperance Hospital

*42*

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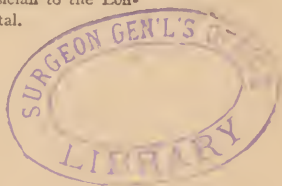
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## THE MEDICAL USE OF ALCOHOL.

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THE following addresses were delivered in Association Hall, New York City, by, Dr. James Edmunds, the distinguished English physician, upon the invitation of the National Temperance Society, on the occasion of his recent visit to this country.

Dr. WILLARD PARKER, in introducing Dr. Edmunds, said :

I regret that the Hon. William E. Dodge, the President of this Society, is unable to be present this evening. I promised in his absence to take the chair, and shall be happy to aid in the objects of the meeting. I am sorry that the inclemency of the evening has prevented so many who are interested in the scientific discussion of alcohol from being present. We are assembled this evening, as has been stated by Mr. Stearns, to listen to some remarks from Dr. James Edmunds, a gentleman who holds a high position in the medical profession in London, being

senior physician to two important hospitals, one of which is conducted on the non-use-of-alcohol principle. Occupying, therefore, such a favorable position for observation, he has devoted such leisure as he could command, in the midst of an active practice, to an enquiry into the character of alcohol, and into its physiological influence upon the animal economy. And now, my friend, Dr. James Edmunds, the pleasant duty of welcoming you this evening has been assigned to me. Although your home is under another government, still our language, our profession, and our views on the subject which brings us together this evening are the same. I welcome you, sir, in behalf of the philanthropists of my country. Intemperance has been greatly on the increase during these last twenty years, and it is now more than fifty years since the first establishment of temperance organizations in this country. The clergy and the philanthropists have labored earnestly to restrain and diminish the evil in every way justifiable. Their course has been empirical. They have treated symptoms instead of investigating the character of the cause and the diseases which it induces in the system. Within the last few years the subject of intemperance has been regarded from a different standpoint, and the enquiry now is, not what alcohol makes us do, but what it does to us and our descendants. By physiological enquiries it has been

established that alcohol is a poison, and, like arsenic, opium, quinine, and other medicines, should be employed only when scientifically prescribed. It is not a food, nor should it be used as a common beverage. It has been proved, also, that when taken into the system it diminishes the temperature, lessens the strength, and, by about 40 per cent., shortens human life. Dr. Edmunds, sir, I not only have the pleasure of welcoming you here, but I have also the pleasure of introducing you to the audience.

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Dr. JAMES EDMUNDS spoke as follows:

Mr. Chairman and Ladies and Gentlemen: I am sure you will sympathize with me this evening when I say to you that I am somewhat embarrassed by the circumstances under which I find myself. I landed on this shore of the Atlantic last Tuesday morning, and since then I have seen such astonishing things in this marvellous city that I almost feel as if I had lost the use of my tongue. I do not think that we on the other side of the Atlantic have any conception of the bustling business and the active life that you have in this unparalleled city of New York. I have not only been dazed in that way, but I have had to face peaches, monstrous watermelons, gigantic oysters, iced-creams, meats, birds, fishes, fruits, and vegetables to such an extent, provided by



the hospitalities of my friends on this side, that if I had not "struck" I should have been unable to be here to-night. I have, however, been living for the last twenty-four hours on simple bread and beef and tea; and the result is that I am here to-night. I hope I shall be able, after the kind words of Dr. Parker (which you must take *cum grano salis*, or else you will do me a very great injustice), to say something in support of the position which he has taken here this evening. I do not know any question upon which physicians ought to feel more deeply than on this question of alcohol. It is one upon which it seems that the very future of our race depends; for, certainly, the amount of disease, insanity, misery, and poverty which grows out of the use of alcoholic beverages is acknowledged on all hands to be so great, that the burden of justification necessarily rests upon those who participate in the use of that out of which so much evil grows. I am not here to argue that it is the duty of the physician to take what is called a moral standpoint on this matter. I think the keynote which you have laid down, sir, is exactly that which well defines the duty of the physician. The relation of a physician to his patient is just that which the advocate's relation is to his client; it is the physician's duty to save or cure his patient "by hook or by crook," and he has nothing to do with moral questions when he is in the pursuit of his profession. But I would also say this:



that whatever is morally right cannot be physiologically wrong; and if that be so, I think the converse of the proposition will hold good—that whatever is physiologically right cannot be morally wrong; and it will then follow that if we can get at the true physiology of this question, and ascertain what it is that alcohol does to the human body, we shall be in a position to know that which moral duty enjoins in reference to this question. If we admit that the burden of justification lies upon those who use that out of which so much evil comes, we may fairly ask ourselves, “For what objects are alcoholic beverages taken?” I would submit that there are three well-defined objects in relation to which we may examine the use of these things. There are many little questions that are mere haze about the central fact in this matter. We hear adulteration talked of very much. I do not know that there could be any adulterant put into alcoholic beverages that would be much worse than the alcohol contained in them. In fact, my impression is that the adulteration of these beverages—almost universally consisting in the substitution of something which is weaker and less potent than the alcohol—is not the cause of any of the evils which are associated with the use of alcoholic liquors. Then, again, when we come to talk of the difference between the various kinds of wines, beers, and spirits, we find that they are all taken for the alcohol which they contain; that there are none of them we

should take if their alcohol were abstracted ; and, practically, we come down to the simple properties of alcohol as it exists in its various proportions in these varieties of wines, beers, and spirits. Well, if we admit that, it will enable us to concentrate our attention to-night so as to bring this subject within reasonable limits. We may regard alcohol taken as a food, alcohol taken as a stimulant, and alcohol taken, perhaps, as a narcotic. If we take up these three points, we shall be able to exhaust the subject very readily. Now as to food. Does alcohol act as food ? You hear a man saying, " Am I not taking my barley in the shape of a pint of beer as well as in the shape of a twopenny loaf ? " And we know that wines are made out of grapes, a very nutritious article ; and spirits are made out of malt, malt being a very nutritious substance and a high type of pure food, and so on ; hence, I say, there is a very well-defined impression on the public mind that all these things are food, simply because they are made from food. Well, I think if you will look into the matter, you will see that that does not hold good. It does not at all follow. I need not say that it does not follow as a matter of logic that that which is made by the decomposition of sugar should contain all the properties of sugar ; and, when you come to look at alcohol and see how different it is from the sugar out of which it is manufactured, you will see at once that it is a totally different substance. There may be some persons here to-night who would be a little at a

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loss for a definition of a food which would be satisfactory to their own minds, and which would include all foods and exclude none. I would submit a definition. I would say that a food is that which, being innocent in relation to the tissues of the body, is a digestible or absorbable substance, that can be oxidized in the body, and decomposed in such a way as to give up to the body the forces which it contains. That definition brings food in relation to the body into a perfect parallel with fuel in relation to a steam-engine. There is no doubt that that is philosophically correct to the last degree. Now, if that be a sound definition of a food, we can very easily indeed ascertain whether alcohol is a food, and we shall be enabled to judge for ourselves what the value of alcohol as a food is, supposing that it be admitted to be a food. Is alcohol innocent in relation to the tissues of the body? That is, you see, the first part of the definition I have submitted. Well, now, what are the ordinary facts? It is admitted by every one that alcohol is the cause of more than half the insanity which we have. I am not so familiar with the facts on this subject here as I should naturally be at the other side of the Atlantic. I know this: that Lord Shaftesbury, the Chairman of our Commission on Lunacy, in England, has said, in a Parliamentary report on the subject, that six out of ten lunatics in our asylums are made lunatic by the use of alcohol. It is a fact which cannot be disputed, that diseases of the liver, diseases of the

lungs, diseases of all the tissues of the body, are induced directly by the use of alcohol, and that as a general rule you may say that where you have alcohol used most largely and most frequently, there these diseases and degenerations in the tissues of the body become the most marked. I could give you very authoritative facts bearing upon this matter from sources which are not open to the imputation of any kind of moral bias, as the utterances of some of our temperance friends may be open to. I will take the Registrar-General's Report for England and Wales for the last ten years, and if we look into that we find these facts: that if you take all the men in the country between the ages of fifteen and fifty-five—that is, all the adult men—you will have a mortality of fifteen out of every thousand each year. Now, that result is drawn from about ten million deaths. It is drawn from persons who are total abstainers in but small proportion. It includes all the working-classes, and the whole, in fact, of the adult population of the United Kingdom. We may take that as a fair rate of mortality, upon which our great corporations and insurance companies make their calculations, which turn out in the mass to be true with wonderful accuracy, although with regard to individuals these statistics will not help us much. If we consider the different classes of people which make up this aggregate, we may discover very interesting facts. You may take the ordinary agricultural laborer, you may take also the tailors and the working-classes, and you

will find their mortality perhaps from thirteen to sixteen per thousand. You may take, again, those who are engaged in the sale and manufacture of intoxicating liquors—publicans, liquor-sellers, liquor-manufacturers, brewers men, and all persons who are mixed up by their avocations with intoxicating liquors; well, now, what do you think are the facts there? Let us take just one class—the public-house keepers. You will find that thirty per thousand of those die every year where the normal average of other men is fifteen—that is, where one workman dies, two publicans die. Well, now, can we account for that in any way? What should we expect if we looked into these facts? The publican is better clothed than the working-man; he is better housed and better fed, and less exposed to casualty and accident which occur to men in the laborious, mechanical, and other trades; and therefore we should expect that the publican would live longer than the ordinary working-man. And so he would if it were not for this one fact which comes in: he is mixed up with alcoholic liquors; he is not, as a rule, a drunkard, but he takes that which damages his stomach a good many times a day out of compliment to some friend who asks him to take a drink. This goes on, and that is the result. I put those simple facts before you, figures about which there can be no question whatever, and I ask you to consider simply as to whether you think that any possible explanation can be put upon those facts other than the one I have suggested—that is,

where you get alcoholic liquors mixed up with human life, there you get human life deteriorated and shortened. There is another class of statistics to which I wish to call your attention. Several of our great insurance corporations in England have sections which may be joined by total abstainers—those who are total abstainers by a condition of their policy; in all other respects, those insurers are upon precisely similar terms to others—they pay the same rates of premium, they are examined by the same medical officer, they are under the same management, and, in fact, they are “on all fours” perfectly, with the one exception that you have on the one hand moderate drinkers—all the drinkers and all the damaged lives having been eliminated—and on the other hand you have men who, by a condition of their policy, are bound to be total abstainers. I submit that if we can get at the results of the operations of these societies for fifteen or thirty years, those facts would be very suggestive. What are the facts? The facts are that you will get a very much smaller mortality among the total abstainers than you do among the moderate drinkers. We are not here comparing the total abstainer with the drunkard, or the drunkard even with the soaking man; we are comparing the total abstainers with those moderate drinkers whom you would say were apparently uninjured by drink, and yet, when you come to reckon up the death claims with respect to the expected mortality and the provisions made for them, you will find among



the total abstainers a large accumulation of bonus to divide among the survivors. I submit to you, ladies and gentlemen, those facts as bearing out broadly the proposition which I have submitted before—that these things are a cause of a great deal of the ill health and disease and shortening and deterioration of life, and that, therefore, the burden of justification lies upon all those who use these things. Let us look at the other side of the account. In what way are these things supposed to be beneficial? I have said, in the first place, that they may be used as a food. What is the possible food-value of alcohol? Alcohol is always manufactured from sugar. But people talk about the gifts of Providence. You hear persons, especially if they are fond of port-wine as well as of religious exertations, talk about the “good creatures of Providence.” They think they ought to take these things because they are “good creatures of Providence.” Whenever my friends tell me that, I adopt the Socratic method—I ask the question: “What do you mean by a ‘good creature of Providence’?” I generally find my friend has difficulty in answering the query; that he is not very ready with a definition. He says, “Oh! you know what I mean.” I say, “I don’t know what you mean. I want you to give me an idea for the term you have used. What do you mean by ‘a good creature of Providence,’ or ‘a gift of God’?” Well, of course, you know a man will have no answer, because arsenic is a gift of God just as much as



a potato, and, in fact, there is no bottom in the argument at all. You cannot discriminate; you cannot say that arsenic is not a gift of God, nor opium, nor strychnine, nor even the rattlesnake, are not gifts of God. In fact, the argument that these things were gifts of God would lead us nowhere at all. But a curious thing is, these things are not the gifts of God any more than a barrel of powder. It is quite true, if rum grew in bottles on a tree, as milk in a cocoa-nut, that would be no reason why we should drink it if it were not good for us. It is a suggestive fact, too, that rum does not grow in a bottle; that you never find alcohol in the animal, mineral, or vegetable kingdom; that it is always a work of art, never a production of nature. So much for this absurd argument. One is tempted to get angry with our sanctimonious people who say that they take these things because they are gifts of Providence. That is an argument you may call one of the *à priori* arguments, and I think you will say that we have answered it sufficiently. Well, now, supposing that spirit were a food, what would be its utmost possible value? Spirit is always made from sugar, as I have said. A pound of sugar-cane, when perfectly fermented and decomposed into alcohol and carbonic acid as it is, will produce fifty-one per cent. of alcohol. Just bear that in mind—a pound of cane-sugar will produce fifty-one per cent. of alcohol if it be manufactured perfectly, so that no appreciable waste occurs. Now, if you will think for a moment,

you will see that, inasmuch as the alcohol is made from sugar, it cannot contain by any possibility more force than was contained in the sugar out of which it was produced. That is an exact proposition, and therefore you will see that if you take a pound of brandy, which contains about fifty-one per cent. of alcohol when it has full strength, if all the alcohol in it be food, an innocent and useful food, that brandy cannot contain more food power than would be contained in an equal weight of sugar. The first thing we should want to know would be the price. We are anxious on the other side of the Atlantic, at least those of us whose brains are properly constructed, to get the best we can for our money, and, considering the struggle for existence, we think it is very wise that we should. Well, now, what does a pound of brandy cost? Or what will the equivalent quantity of alcohol cost in relation to a pound of sugar? You will find that you can buy as much food in the way of sugar, or beef, or suet, or oatmeal, or other perfectly innocent, useful, unquestionable food substances, for one cent, as you could in the shape of alcoholic beverages for twelve cents; so that as a question of money value you will see that alcohol is certainly not an economical food. Of course you know that our great brewers and distillers—I don't know what they do on this side of the Atlantic, but I know they are very dignified personages indeed on our side—get very wealthy. You won't wonder at it when you see what a margin there is upon

the manufacture of sugar into alcohol. So much for the economical value of alcohol as a food. You know from the other facts that alcohol is not innocent in relation to the tissues of the body, and therefore, if a food, not a good food. Whether alcohol is decomposed—as fuel is decomposed in the fireplace to work an engine—is a question upon which the medical profession and scientific men have disputed very much. Indeed, I do not know that medical science has yet completely solved the question. I do not know that you will get much more out of scientific men on this question than you will get out of your own unaided senses. And what do they teach you? If a man take sugar as a food, you never see that sugar leaving the body again. It does not go out in perspiration, it does not leave the body again at all, unless under very extraordinary circumstances, and when an inordinate quantity has been taken. But if a man takes a tablespoonful of alcohol, what do you find? You can smell it coming out of every pore of his skin a few minutes afterwards, and long after the nose has ceased to detect it you can demonstrate the alcohol leaving the body in the exhalations which come from the skin and the lungs; you can demonstrate and reproduce alcohol as definitely as you can reproduce in a court of justice arsenic from the body of some person who may have been poisoned with it seven years before. Well, now, I simply submit that to you, as showing on the evidence of your own senses that a large part of the

alcohol which is taken into the body leaves the body again as alcohol undecomposed, and therefore cannot have given up those forces which hold its constituent elements together, and which are always given up when a substance serves as fuel in an animal body. So that you see, first, alcohol would be injurious, producing disease, insanity, and shortening life; secondly, it would be expensive—at least ten times as expensive as other innocent food; and thirdly, it is not a valuable food, because it leaves the body undecomposed. Now, we are told that alcohol is a stimulant, and the doctor who is working very hard, and the clergyman who has to get the steam up on Sunday, and many who are stock-brokers and merchants in great cities like New York and London, find the pressure so great upon them that “they need,” as they say, “a little stimulant.” They say, “I admit all you say, doctor; it is very injurious; but practically I get on better with the stimulant. I take it as a stimulant.” And the lady who is very weak and has a baby takes a pint of stout, and sometimes more, as a stimulant. If that can be made out—that it is a stimulant—there is a justification for its use; I should myself see no more reason against using a stimulant when a man was low and faint than I should against poking my fire or putting the blower up if it was likely to go out. I can conceive there are a great many circumstances where a physical stimulant may enable a man to go through his work more easily

than he would otherwise be able to do. But what is a stimulant? Do we all understand quite what we mean when we say, "I take a little wine as a stimulant"? Food, as you know, is that which is decomposed in the body and supplies it with the forces which that body afterwards gives out. If your horse is tired out with his journey, you give him a feed of corn with water, and time enough to digest it, and he goes into harness again, and goes through the next stage. What is it that has taken him along through that second stage? It is the corn which has served as food to the animal, and has been decomposed in his tissues, just as the coal would be put into a locomotive furnace when the fire was going down. Now, suppose, instead of giving a horse a measure of corn, you give him a liberal allowance of whip—that is a stimulant. The horse goes on, and works until more completely exhausted; and just so with a man. Now, recollect, food is that which puts strength into a man, and stimulant is that which gets strength out of a man; so that when you want to use stimulants, recollect that you are using that which will exhaust the last particles of strength with a facility with which your body otherwise would not part with them. That is what we always do when we work on stimulants. If alcohol be a stimulant, I should submit to you that unless there be very grave reasons indeed shown for it, the habit of working on stimulants must obviously be an unnatural and injurious one. I submit that to you as a *prima facie* proposition,

which commends itself to the common sense of every one. Of course we make our horses work to a very large extent on stimulus; what is the result? We use them up in about seven or eight or ten years, when they would otherwise enjoy a long and happy life for thirty years. When a man works in business upon stimulants, that is what he does with himself. If you watch men who work on stimulants for a few years, you will find that they very rapidly deteriorate; they lose a great deal more than they gain by it.

What else is there that alcohol may be described as? I must use a technical word—narcotic. I don't know any other word that will express the idea. What is a narcotic? I will give you examples: chloroform, ether, opium; and there are other narcotics of that kind. Tobacco is a narcotic, and so is alcohol. I cannot but think that alcohol has a partly narcotic influence upon the body, and that its real uses in medicine are those of the narcotic and not those of a stimulant nor those of a food. Let us look at the influence of alcohol and see what it does, and if we unite upon this point there will be no difference of opinion; we shall then have logically approached that position at which we can fairly discuss those points on which we may differ: that is, as to whether alcohol is a stimulant or a narcotic. What do we know about alcohol? There are some things we do know about it with certainty. If a man takes a pint of brandy, what do we see? It intoxicates, it poisons him. Of course



you know intoxicant is a modification of the Greek word *toxicon*. A man who is intoxicated is poisoned; we simply use a Greek instead of a Saxon word for it. We see a man intoxicated; what are the phenomena we see there? A man lies on his back, snoring, helpless, senseless. What are those phenomena? If you set him up, he falls down again like a sack of potatoes; if you try to rouse him, you get out of him nothing but a grunt. Is that the effect of a stimulant, do you think? I should think it is the effect of a paralyzer that you have—mind and body and nerve and muscle all equally and uniformly paralyzed right through. That is what I should submit to you. I think any one who has seen a drunken man, and who has observed the phenomena, will agree with me that it is a fair description of it; and there is no doubt that that is specifically accurate: that alcohol in a large dose is a narcotic poison, which paralyzes the body and stupefies the mind. Well, now, there we get something upon which we are all agreed. If a man takes a somewhat larger dose, what do you see then? You see that that snoring and breathing come to an end; you see that the soft, flabby pulsation of the heart ceases; you see that the spark of life goes out, and the man cannot be resuscitated. In fact, there are more men killed—so far as I know of English statistics—more men poisoned in that way, by alcohol, than are poisoned by all other poisons put together. We have a great horror of arsenic and fifty other



things : the fact is that all these things are a mere bagatelle in relation to the most direct, absolute, immediate, and certain poisonings which are caused by alcohol. There is no great city on our side of the ocean where there are not inquests held upon men who drink a bottle of brandy, and fall down and die just as if you gave them a spoonful of prussic acid. If we realize these points, we get clear facts to start from. Alcohol is a poison. We can kill a man by a single dose, or the effect of a smaller dose is to paralyze the muscles and stupefy the body. Let us come down gradually, and see what effect a smaller dose will have. A man takes a half-pint of brandy. Well, he does not lie on his back, you will say, and he does not snore ; he simply looks very stupid, he cannot walk straight, he sees two policemen where there is only one ; he thinks he is strong enough to fight all the world ; everything is so buoyant that the pavement rises up and strikes him on the head every now and then. That is what you see when a man has taken half the quantity. What do you think are those phenomena ? Are those the phenomena of a stimulating influence, or are they half the quantity of an influence of the same kind ? I submit to you that you simply have half a dose of poison, and you have half the narcotic influence, manifesting itself in submerging the bodily powers, and gradually the finer faculties of mind and body, putting into abeyance those faculties of the nervous system which harmonize the various ele-

ments and bring the whole body into its uniform, graceful action; and you have the man's limbs, as it were, not working together, but the mere coarse animal functions still struggling against poisons and the depressing influence of alcohol. If you give the man half that quantity, what do you see? You see a lesser quantity of the very same effect; and so you can go on till you get down to a single glass of wine that your doctor or your merchant takes as a stimulant to help him do his work, and relieve that sense of fatigue with which nature visits a man when he is misusing his constitution and urging his powers beyond that point which they were intended to work. Well, you see also that that is the effect when a minister who cannot preach without a glass of wine has a glass in him. He finds his tongue will run on a little faster than his brains would be able to drive it if he had not got the alcohol in him. I submit to you broadly that if you take a man with a single glass of wine or spirits in him—if you test that man's physical power, mental accuracy, keenness, and freshness of memory, and real debating power (I do not mean simply spouting the material that comes out of his mouth, but I mean debating power, say in Parliament or Congress), you will find that the man who has got spirit in him won't do it as well as the man who does not use it. Test a man with a cross-grained sheet of figures. When he has spirit in him, can he reckon up those figures as well as when he has not? Certainly not. If you have any friends who suffer from defective mem-

ories, you can cure that mental defect if you can persuade them to leave off wine. I submit those facts with a view of helping your common sense to see that which we know with regard to spirit, that it is unquestionably a narcotic poison, and that the presumption is that in small doses you have a small quantity of the same effect. I do think that that is a proposition which will commend itself more to you than any such proposition as this: that by diminishing the amount of the dose you reverse the nature of the effect; for that is the proposition which underlies the position that alcohol in large doses undoubtedly is a narcotic, but that in small doses it is a stimulant. It would then come to this—that whenever a man thinks he is taking a little stimulant, he is simply taking that which stupefies and fools him; and I believe that we have labored, and that the general public have labored, under a great delusion, not only with regard to the use of alcoholic beverages in daily life, in supposing that they had enabled them to do more and better work than they would have been able to accomplish without them. I believe, in cases of sickness, the last thing you want is to disguise the symptoms—to merely fool the patient; that if alcohol were a stimulant, that is not the sort of thing you would want to give to a man when exhausted from fever. If your horse is exhausted, do you want to give him food, or would you give him rest and food? So, if your patient is exhausted by any serious disease, surely it would be the more rational thing to let him rest

quietly, to save his strength, and in every possible way to take care to give him such food as will be easily absorbed through the digestive apparatus and keep the ebbing life in the man. Well, those are the considerations, ladies and gentlemen, which I would submit to you as an answer to the question so pertinently put by our chairman here to-night, Dr. Parker. And when we come to take up specific diseases, I will consider that disease which we know is produced by alcohol—delirium tremens. It is a disease not unknown on this side of the Atlantic; certainly, it is not unknown to us in England. What is the theory? The notion is to cure the man by a hair of the dog that bit him. I do not know whether that commends itself to you as a reasonable proposition or as a reasonable theory of curing a man. How does delirium tremens come about? There are two factors in the production of delirium tremens. Firstly, the man has been living on stimulant, on spirit, without taking necessary food to keep up the proper nutrition of his body, so that spirit has enabled the man to go on and exhaust his nervous system by working beyond a point which he would be able to exhaust it, and the result is you have an impoverished nervous system for want of nutrition. The second effect is, that you have alcohol actually exerting a chemical influence upon the tissues of the brain, upon that physical medium by which the mind and mental powers are manifested. You have, first, want of nutrition; and, secondly, actual poisoning, on the part of alcohol. That

poisoning may be either acute or chronic. A man may get violently poisoned by a week's or ten days' debauch, by a state of drunkenness in which he will scarcely have a sober moment; or a man can gradually get into that condition by soaking, and some trifling accident will bring out all these symptoms of delirium tremens, which will carry him off. The theory is with very many eminent physicians, to whose opinion I should defer with the greatest possible respect, although I should strenuously argue against it from my own theory and experience—the theory is that you should let them down gradually; that you should go on and give them spirit. We have had many eminent men on our side of the Atlantic who have given these patients enormous doses of spirits. Suppose one of us had an affectionate friend who for many weeks had been putting poison in our coffee, and at last we found ourselves getting ill, and the ordinary symptoms of arsenical poisoning coming on. Would you think it the proper thing to go on giving it to him, or would you stop the arsenic at once? I submit, you would have it stopped all at once. So, I maintain, when you have a man in a state of delirium tremens, you should stop giving him that substance which poisons his nervous system, and has contributed to bring about that state out of which the exhausted condition of the mind comes. I submit that is an ordinary common-sense position. I would tell you this also: that we have found, in looking into the statistics of

delirium tremens treated in the old way, that the mortality was very great; and while I have gone through all those phases of treatment when younger, and, I thought, immensely cleverer, I have come to the conclusion that the use of spirits in the case of delirium tremens does nothing but worsen the patient, and probably hasten his death. I now, without the slightest hesitation, in every case should immediately stop the spirit; and I find that very few cases of delirium tremens that I have are fatal, provided I can have a responsible nurse or a resolute wife who will stop the miserable patient from getting out or sending a servant for a bottle of brandy, which he might have under his pillow and drink on the sly. If you want to save what strength the man has remaining, how will you do that? You will put him to bed; you will save what strength the man has by preventing him walking about, and by prohibiting friends from talking of business matters. If you have a nurse who will exercise the common sense not to argue with the patient in that way, you will save the remaining strength as much as possible. The second point is to keep the man warm. One of the great sources of exhaustion is wasting the supply of heat; and the third point is to give him nice beet-~~tea~~, milk and water, and good, well-boiled farinaceous food, and perhaps a simple dose of active medicine to carry off all the remaining alcohol in him from the last dose that he drank. That is the treatment which I have adopted now for many years, and I find it



immensely successful. I have been the means of inducing a great many medical friends on the other side of the Atlantic to adopt that treatment, and my conviction and observation have convinced me that it is always more successful than the other. Well, I might, if it were proper for me to trespass longer upon your good-nature, go over almost every disease that flesh is heir to, and I almost fancy that in the individual who was suffering from a disease not acquired by his own act, I could always trace it back to a father who went before him, who has left him a wasted vital system; for we are only tenants for life in the vitality of our race, and if we waste our stock of vitality, the children we leave after us will grow up suffering from various maladies which we have introduced into our organizations. There are those who have had diseased physical organisms bequeathed to them, and they are suffering from an irritable brain and an eccentric habit of thought because their fathers drank spirits. I could trace back cases of apoplexy, and show you how the softening of the muscular tissue of the heart, hypochondriacism, dyspepsia, and any one of the varieties of diseases that cut off active men in the middle of their business life, are traceable to alcohol. I suggest to you that you will be better by remembering the words that have fallen from our friend Dr. Parker—a man whose name we revere as much on the other side of the Atlantic as you revere it here—and do away altogether with the use of intoxicating drinks as beverages. They



have no place whatever as beverages, and as medicines they need to be used with the utmost possible discrimination, and not as stimulants so much as narcotics, and in such cases as we use opium, ether, chloroform, and other medicines. While I believe that mercury, arsenic, chloroform, and opium are useful in the hands of a skilful physician who knows how to use them in a moment of necessity, I cannot but believe that alcohol also, potent drug as it is, may be useful in many cases of disease; but the cases in which I use it in my own practice, I confess, become less and less frequent every day. And I should feel that I lost very little were I deprived of it—indeed, I almost think that if mercury and many other remedies that are used so freely now were used less freely, the practice of medicine would be more successful than it has hitherto been. There is one difficulty I have in this matter, and that is that unfortunately the weight of opinion in the medical profession, I am afraid, appears to be in favor of using these things as beverages. Well, medical opinion may be resolved into two elements—elements which any person whose brains are properly constructed can appraise: first, medical dogma; and, secondly, medical science. Now, medical science has its well-defined scientific facts, and the inferences which logically attach to those facts. Medical dogma is something else. What is the history of medical dogma? Thirty years ago the fathers of the very men who now prescribe brandy, and wine, and ale for almost all

the diseases to which we are liable, prescribed what? Not brandy, nor ale, nor wine, but mercury, bleeding, and starving; and when the old woman said she would not be able to stand it, and the doctor replied that he would not take the responsibility of the result of her refusing his prescription, she said she would take the responsibility, and she is a fine old woman now, but would not have been if she had yielded to the persuasions of these eminent gentlemen. They believed conscientiously in this mode of practice. Do not imagine that I am suggesting that the old gentlemen whose pictures we have seen of bleeding their patients had any intention to kill them. There is, however, no doubt about this fact: that they did kill nine patients for every one that they cured. I think you will find that medical dogma is a curse to mankind and a delusion to the profession. Now, when some of you go to your doctor, you say, "What do you think, doctor? Had I better take a little spirits?" The doctor has a wife and family at home; he is not always a man well up in real estate in the city of New York; and he has worked twenty years. You may pay your accounts regularly, and your fees are very adequate. He looks at you and says, "Yes, you need a little brandy." Just as the wife who says, "Doctor, do you think that going to Saratoga would do me any good?" "Yes," he replies, "I think it is the best thing you could do." The wife replies, "Then I wish you would write my husband

a note, and say I must go." But you must not go to the doctor in that way. You must recollect that he has to look after his wife and family, and he may think that he will lose his reputation if he tells you you must not drink. Some medical men would say, "So-and-so is a well-meaning man, but he is a little cracked. Yours is a constitution that would run down rapidly if it had not a little wine; you came to me in time to save you." You did not die, but got well in spite of the wine, and you would have got well much better if you had not taken the wine. As things now stand, the doctor is put in an extremely uncomfortable position. But I tell you, if you go to your doctor and say to him, "These alcoholic beverages do a great deal of harm; do you think I need them?" nineteen times out of twenty the doctor would say, "No, I think you would be better without them." There are some who will not say so, but who are they? Some of them are men who tell you that which they have been told before. As a student in olden time, I dare say I have killed scores of little children by the old-fashioned treatment of tartar emetic and leeching when they had a little cold on their chest. It is quite natural that the young ones should be influenced by the weight of opinion of their elders. Many medical men really have no well-defined belief, but they have seen the

old gentlemen from whom they learned their profession do things in a certain way, and they remember what has been taught them at the hospital, and they continue to do the same way without thinking of the matter. You will do them a great deal of good if you follow them up and question them. Ask them why they order you spirit, what is it to do, what doses you are to take, and how long you are to take them. It is so strange that if we go to a physician and get an ordinary prescription, if we take it for two or three weeks, we think we have done very well; but if he orders us a glass of wine, we take it all our lives as a medicine, not only with commendable punctuality, but we increase the dose. If you ask your doctor questions, you very often do him service; you call his attention to this matter. My attention was called by a rough-handed total abstainer. I ordered him stout. I said, "You must take a little beer." He sat down in my dining-room and said, "Doctor, I am sure you have a reason for everything. If you can show me it is good for me, I will take it; I have taken nothing for a dozen years, and I am a great deal better without it. What do you think it will do for me?" I had never been cornered in my life in that way. I really found I had no answer; and so you will find that your doctors will have no answers for such questions. When they appeal to experi-

ence, resting it upon mere dogma, recollect the facts with regard to medical dogma—that medical dogma, as such, has never been anything but a delusion and a snare.

# STIMULANTS FOR WOMEN.

ADDRESS OF DR. JAMES EDMUNDS TO WOMEN AT  
ASSOCIATION HALL ON THE USE OF STIMULANTS  
FOR WOMEN AND NURSING MOTHERS.

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A select and intelligent audience of ladies assembled at Association Hall, corner of Twenty-third Street and Fourth Avenue, on Friday afternoon, October 2, 1874, for the purpose of listening to an address on temperance by Dr. James Edmunds, of London. The ladies composing the Women's Temperance Union occupied seats upon the platform.

Mrs. REBECCA COLLINS, the Quakeress, presided, and opened the meeting by saying: The noble cause of temperance has drawn us together this afternoon. I trust we all feel it to be of deep importance, and it is some encouragement to hear from our friend, who has long been laboring in London, what they have been enabled to do there. His experiment of a Temperance Hospital has been successful; but of that and his other work in the good cause he will tell us himself. His reputation has long reached this side the Atlantic, and it is with great pleasure I introduce to you Dr. Edmunds.

## ADDRESS OF DR. EDMUNDS.

DR. EDMUNDS spoke as follows:

Ladies: I am very much pleased indeed to be here this afternoon just to say a few words to you upon this great question which Mrs. Collins has introduced. I shall have the honor to submit to you a very few observations in reference to the use of alcoholic beverages which it may occur to me will be useful to ladies, and which will touch more especially upon questions in reference to their own health, questions in reference to the health of their children, questions in reference to their duty as mothers, as wives, and as citizens. I fear that you are in some danger of being misled by the kind things which have been said in reference to myself; I fear that I have taken very little active part in any temperance work. My position is simply that of a practical physician, who is working to the best of his ability in the centre of a great city on the other side of the Atlantic; but it has so happened that my attention has been called to the importance of this question, and to what I have now come to the conclusion are delusions with regard to the supposed benefits to be derived from alcoholic beverages. That fact having become known, my temperance friends and workers in this cause have frequently called upon me to give my evidence at large medical and other meetings in Exeter Hall, London, in Glasgow, Edinburgh, Manchester, Dublin, and other great cities on the



other side. But I am a simple accident in the temperance work, and I am not entitled to anything more than that in the way of credit for what I have done or for the position which I take. I had no expectation till a few days ago of speaking to you in New York. I am here to get away from my own business, where letters and telegrams cannot follow me, to have six weeks' rest, which I had allotted to myself. But the friends who are here have imposed upon me this duty, and I can assure you that it is a duty to which I very readily respond. I feel great pleasure in being welcomed by the ladies of New York, and in being allowed to submit to them any observations which may occur to my mind. I beg that you will credit me not with the position of an advocate of any cause, except the truth, except simple scientific fact; that is all I am here to deal with to-day. In anything that I may say to you, I shall do my best not to give you one side but both sides, and my object will be simply to submit to you facts upon which you will use your own judgment. Upon the general importance of the subject, I do not think I need say anything. There can be no lady present this afternoon who is not aware of the terrible evils which arise out of the use of alcoholic liquors as beverages; and when all ladies will fully realize this, and will see for themselves the ruinous consequences which ensue from the use of intoxicating drinks, they will throw their influence in favor of abstinence from them. It is not only the "weaker

brethren" among us who are led to use these intoxicating liquors, but often the most promising son of the family, sometimes the earnest business man, and occasionally the man whose duty it is to stand in the pulpit and take the lead among us in matters of morals and religion; for strong drink, as of old, seduces the high-priests and rulers of the land. The fact of this evil comes home to us whenever we think of it and look around; and we see that wherever drinking is, there drunkenness comes. We know that there is no drunkard now in the cities of New York and London who ten years ago was not probably a moderate drinker, and as respectable a member of society as any of us here to-day. We may predict this: that among the moderate drinkers, those respectable, well-meaning, and often well-acting people, who simply take their glass of wine, or beer, or spirits each day, that ten years hence there will be the same proportion of drunkards growing out of those moderate drinkers that in the last ten years have been habitual drunkards. Now, all this is trite and out of place; but it seems to me always to be a necessary platform to lay down, in order that those persons who have not given their minds to the question of duty in this matter may have it driven home to them. You will all agree with me that unless this proposition can be disputed, there is a duty lying upon every one of us to justify ourselves when we participate in the use of that out of which so much evil grows. If that be fair ar

gument, we have to consider what is our duty in this respect; how that duty is to be arrived at and defined, and how it can be best carried out. We hear a great deal said upon this and other questions about moral duty. I do not propose to lose my time or waste yours this afternoon in defining what a moral duty is. I believe, as I said a few evenings ago, that that which is physiologically right in this matter cannot be morally wrong, and that that which is physiologically wrong cannot be morally right. If that proposition be true, we have only to examine carefully and accurately the true physiological effect of alcoholic beverages upon the human body, upon the physical and mental powers, upon digestion, and upon the various organs with which these liquors come in contact; then to weigh those benefits, if they be benefits, against the evils to which we have cursorily alluded, and from that balance we shall see what is our duty in this matter. There are several ways in which this question is met, and some of these methods I would not commend to you. I would say this: that if you come to the conclusion that the use of alcoholic beverages will enable you to maintain or improve your health; will enable you, better than their disuse, to make the best of those faculties with which you have been endowed, and qualify you to discharge your duties to yourself, to your family, and to the society in which you move—if that be so, it is your duty to use them honestly, and to take honest ground in reference to the question. I hope none of you

will be weak enough to persuade ladies to banish these things from their family tables to their own boudoirs. Nor should men be so weak and cowardly as to banish these things from their own family tables and take them in their own private studies and counting-houses. We should take clear ground upon this matter. If they are good, use them; if they are not, let us do that which in us lies against their use; persuading others to do that which we find to be good for ourselves. I hear some of my friends take credit occasionally for virtue on this question of total abstinence. I never have any faith in a man or a woman who takes credit for virtue in any habit of this kind. For myself, I am a total abstainer, simply because after a very careful trial in my own person, after very careful watching in the world in reference to the effects of alcoholic beverages upon those who take them largely and upon those who take them sparingly, and after the most careful attention that I can give to the study of statistics, to the results of life insurance, and other matters on a large scale, I have come to the conclusion that the use of them is a mistake. I know in my own person that I am better without them; that I am capable of doing more work, mentally and physically; that my memory is fresher; that I am readier for any debate or for any physical or intellectual work that may be devolved upon me to discharge; and therefore it is that I am a total abstainer. I am not a total abstainer merely because I am a virtuous or a moral man. I am sim-

ply a total abstainer because I hope I am sensible in this particular matter. I am here to-day to submit to you the results of my own convictions, at the request of friends whom I love and whose objects I respect, and because I consider it my duty to do that which I can to assist others towards coming to the same conclusion which I think has been so beneficial to me. In discussing this temperance question, I should like to see a careful avoidance of mistaken argument, inaccurate thinking, violent language, and heated denunciations of facts upon which all of us agree. I should like to see the temperance question dealt with upon the basis I have suggested, for I believe there is no other basis upon which it can be erected, if the temperance question is not to die out altogether. One word as to substitutes. The whole doctrine of substitutes in this matter is a sham; it is even worse. As I would say—use these things honestly if they be necessary, so I would add—do not be deluded by any one who will tell you to take chlorodine, pain-killer, or any of those thousand-and-one nostrums that are infinitely more pernicious than alcohol itself. They all contain opium or a narcotic of some kind, which is even more enslaving and destructive than alcoholic liquors themselves. I am startled and grieved when I hear a lady tell me that she now takes hartshorn instead of wine, when I hear another lady say that she takes a little ether in water two or three times a day instead of wine, and when I know other ladies

who will drink *eau de cologne*; in fact, will resort to substitutes as foolish as those which men employ when they take things of the same kind, and when they use liquors in their counting-houses which they are ashamed to introduce upon their family table. The whole doctrine of substitutes, I repeat, is a sham and a snare. But I must not go on any further in talking upon general considerations which arise in one's mind upon this question. I am to have the privilege of speaking in this hall again, I believe, this evening to a general audience. I will, therefore, pass on more especially to those points which come into relations with ladies in their duties to themselves, to their families, and to the society in which they move. I will ask—what is the true criterion of those duties? Is it any abstract standard of morality, or is it the physiological test which I have suggested to you? The ground which I shall take will be the physiological test. When you come carefully to consider without prejudice the influence which these liquors have upon yourselves, when you get rid of the prejudice which habit will necessarily produce—for one is very much the slave of habit—you will be prepared to act intelligently upon this question. Men are the slaves of habits in regard to tobacco, and it astonishes one to see the prevalence of the injection of *sauva* on this side of the Atlantic. Just so is it with ladies who have been in the habit of using intoxicating drinks for any length of time—they are not in a position to judge how their



health will be when they have first left off their use until months have passed by; the stomach and the system will not have recovered its balance, and it will not work in a perfectly healthy way, so as to produce the full share of advantage which is obtained even by leaving these things off. Upon what principle are we to test these things? Physiologically. But in order to do that, I must ask you to consider for yourselves what is the true source of vital power. The true source of vital power is reaction between food properly digested and a constitution properly organized. Those of us who have the misfortune to inherit imperfectly organized constitutions in consequence of vice or follies of our progenitors—the effect is the same in nature—there is no power to relieve us on the ground of our ignorance; those of us who have the misfortune to inherit imperfect constitutions must not expect that anything will recast those organizations and enable them to do that for which they were not designed. The philosophy of life in them is to adapt themselves to the circumstances in which they find themselves; to adapt circumstances as much as possible to the necessities of their own constitutions to be attained by them, and not unattainable perfection in every department which only individuals can accomplish. Therefore, we must bear in mind that the constitutional power of an individual is a constant quantity, and something which he cannot alter, although he can do an immense deal by modifying circumstances, by skilful feeding, and

by carefully adjusting work, to make the best of those powers, and to make a weakly life into a really useful, happy, and very enjoyable one. The source of vital power, then, being the reaction between the body, as an active agent, and food, as an agent from which that power is elicited, you see we naturally come to the way in which the food serves the body, and to those various circumstances, interesting more especially to ladies, by which they can avoid particular troubles to which they are liable—particular times of weakness, particular states of mental anxiety, and particular strains upon the bodily strength. I will not suggest to you that there is one set of physiological laws for man and another for woman. Not at all. The physical laws which govern the reactions between the food and the body of woman are precisely the same as between the food and the body of man; the only difference is that the man, designed, as he appears to be, to take the brunt of the labor of the world, to be the worker in the world, is made stronger and bigger and requires more food, and requires to be very often indeed more carefully tended if he is to work up to the full measure of his strength. But the laws are precisely the same which enable a woman to make the very best of her powers as those which enable a man to make the very best of his powers. I would go further, and say that the physiological laws by which vitality is conserved and maintained, are precisely the same in their essence, whether one

is sick or whether one is well ; that when one is sick, the only difference is one of applying the food to the particular condition of the digestive and assimilative powers, which would make strong, heavy, indigestible food injurious, and necessitates the patient's adhering to more simple or soluble, easily-digested, light food. Take, for instance, cases of typhus fever and others. You get the digestive system almost paralyzed. As you get heat of skin, and an eruptive condition sometimes upon the skin, as in scarlet fever, measles, and other diseases, so you have a like condition upon the membranes of the stomach, and of the mouth and throat, and the result is you have no proper saliva, no proper gastric juice secreted ; you have the stomach in a condition in which it cannot digest food, and, if you stupidly and ignorantly force a patient who has lost his appetite to swallow food, you merely put that into him which, instead of being a source of vital power and strength, becomes a source of weakness, suffering, and difficulty. That, you see, is a simple matter of common sense, and the only difference you make in feeding a patient is to take care that you give him thin milk thickened with a little arrowroot where otherwise you would give him beef and mutton and solid vegetables. If I were to trust myself, I should give the whole of the time this afternoon in going into details on this question of diet. I wish to submit very strongly that, when a lady is suffering excessive strain—we will say she has to provide for the wants of an infant,

and she is told by her mother, perhaps, or lady friend, that she must take a little stout two or three times a day, must take a glass of wine or a little spirit—I wish to submit to you very clearly and positively that the same law must come in when you want simply to maintain health in the most robust and vigorous person. It is only a question of the application of this great law, the way in which you are to feed the body, that, if you put upon your body a strain which is greater than the forces that can be elicited from the amount of food that you are capable of digesting, you are using up the constitution instead of using up the food which is designed to supply the body with force.

Well, then, that brings us down to this position : that, after having carefully fed ourselves up to that point at which we cease to be able to digest more food, our duty is to limit the scope of our exercise, do that which we can do to the best of our power, and supplement our powers by such artificial assistance as we are able to do. That is what I would submit to you as the true principle of modifying circumstances to the inherent wants of our own powers as we are endowed with them in our original constitution. And when a lady who has to nurse her child is induced to take what is called a stimulant in order to enable her to do that which otherwise she would not be able to do, why, it is perfectly clear, if these principles be true, that she is simply urging on her system to do that which she ought not to do. In a rightly

constituted mind, who fully realizes the truth of the principle that virtue is its own reward and vice its own punishment, I would say that, whatever one is capable of doing and whatever one should do, it is a pleasure to do. If we attempt to do that which we cannot well do under the influence of a stimulant, we are doing that which is philosophically and practically wrong; we are ruining our systems and laying up for ourselves ill-health, suffering, and misery of one kind and another. I will say a few words more, if you will allow me, upon this question of nursing. I will take many ladies who are not physically strong, who find that they are unable to supply all that the babe may want. Now, there is first this point: are they strong enough in themselves, when properly managed, to provide for the babe entirely? If they are not, they should feed the child partly upon suitable food. I will say a word or two upon what I consider to be suitable food in a moment. They should, then, very carefully study the other demands which they are making upon their strength, and they should see whether they cannot economize their powers by cutting off some other demands which can be more easily and properly dispensed with than those primary demands of the infant upon the mother. Thirdly, they should see whether they are feeding themselves to the best possible advantage, so as to make the most of those powers with which they have been endowed. Now, as I have said, no medical advice and no form of quackery either

will alter the original constitution of any one of us. We cannot add a cubit to our stature; we cannot change the color of our eyes or the shape of our features, at least not much; certainly we cannot in any essential way alter the constitution of the body. And what is true with regard to our stature, the color of our eyes, and all the general features of the body, is true with regard to the original powers which we may possess. Therefore we must not attempt to urge those on. Our duty is to obtain the most accurate measure we can of what we can do, and then to keep within that limit. It is distressing to see in the city of London, and I suppose you have numerous instances of a similar kind in New York, where business men engaged in heavy commercial transactions kill themselves by working on stimulants, doing that which they ought not to do and are not capable of doing, when no amount of fair work would kill them. But the question which we are now considering is, How are you to regard the babe? I would say that you must look upon the infant as an extension of the mother's system—simply as an addition of so many pounds' weight to the bulk of the mother's body. That is the true way of regarding it. A child really lives upon the blood of the mother, deriving a perfectly elaborated, perfectly constituted, and perfectly proportioned food, which is both food and drink for it—the most perfect food that a child can have. Ladies, I tell you as a physician, it is the only food upon



which a sound, healthy, and promising generation of men and women can be reared. How is that food made? It is made in precisely the same way that the mother's own strength is supported and her body is nourished. The mother's brain feeds just as much upon her own circulating blood as does the babe at her breast; and, therefore, it comes to this; that the mother's nursing power depends upon her digesting power, and the whole question is one of feeding. Now, what are the commonplace errors that one sees? When ladies come to a physician's consulting-room complaining that they cannot nurse the baby, and that they get faint and are unable to do their ordinary duties or to go into society, nine times out of ten I find that it is simply an error in diet. Ladies often take a very large quantity of flesh food, under the impression that it will strengthen them and enable them to do more work than otherwise they could. I am obliged to submit to you that my own conviction is that that is a great mistake, and that a great many of us eat a great deal too much flesh food. There is no doubt in my mind that a certain amount of flesh is very useful and good for most persons, but I am sure that for a nursing mother to rely largely upon adding to the amount of flesh food which she takes is a most injurious mistake. What is there among our ordinary articles of food which is most nearly like the milk which the baby needs. Is it flesh? is it vegetable? is it wine? or is it milk? It is

milk; and almost upon one word I could make turn the whole of what I have to submit to you. I generally say to ladies, If you will take warm milk in the morning flavored with a little tea as your drink; if directly upon waking, before you rise, you will let a servant bring you up half a pint of milk thickened with a little oat-meal gruel, or anything that is equivalent to the coarse oat-meal well boiled and then thinned out with about an equal quantity of milk—if you will take that alone every day, a month's time will make all the difference in the world between your being in good health or your being in weak or feeble health. The best breakfast a lady can take is to eat a good deal of bread-stuff and a rasher of bacon or something of that kind, and then to drink plenty of warm milk with a slight mixture of tea, cocoa, or any simple liquid of that kind at a temperature which will enable her to easily digest it. At dinner-time, she will take care, instead of eating a double-quantity of flesh, to have rice, milk, or potatoes; in short, she will live in the simplest possible way. I observe that in this country a great variety of foods is eaten at the same time, which has a most mischievous action upon the stomach, imposing upon that organ a combination of duties that it never was intended to discharge; and the habit which I have also observed here of drinking ice-water, followed alternately with hot coffee and hot meat, is of all devices that I have ever seen the one most calculated to destroy the teeth and stomach.

The habit of taking iced fluids at meals is a most injurious and destructive one. The full measure of food cannot be properly digested if you pour into the stomach half a pint of water, for that arrests the action of the gastric juice and takes out of the stomach heat, which is its force and power. That is the kind of dinner I would suggest; whether you call it lunch or dinner, I would say that the mother should have a substantial, comfortable meal of that kind in the middle of the day. At tea-time she should have a meal containing a great deal of farinaceous food and a fair quantity of sugar, unless she finds a tendency to become too corpulent, in which case the sugar should be omitted and the amount of pure farinaceous matter should be lessened. Then at supper-time I would have another pint of milk thickened with a little well-boiled oatmeal porridge. During the night I should say that a pint of milk gruel ought to be standing by the bedside. Anything that a mother can do in the way of diet for her child will be done upon that kind of food. If the mother's health is failing and she is not following out a line of diet such as that which I have here roughly outlined, she is doing a wrong to herself, to her family, and to her infant. I do not know personally what are the habits of ladies on this side of the Atlantic, but I do know that of late years the ladies on my own side of the Atlantic have abandoned the system upon which their mothers reared them, which was not one of beer or wine or spirit drinking, but was one of

simple and wholesome diet such as I have described to you. They now imagine that they can combine the "pleasures"—shall I call it?—or the "duty" of going into society with the nursing of the infant. I fancy it is not much pleasure to go into society nowadays as society is, too often constituted in our evening parties. But ladies seem to imagine or expect that they can burn the candle at both ends, and will last as long as if they did not attempt to do so. Some of them attempt to nurse their children and go to an evening party, and return home at one or two o'clock in the morning under great alternations of temperature, and then wonder how it is that they get out of health. I do not propose to offer you any advice which will enable you to accomplish those two objects; for, if you set your heart upon accomplishing both, you will fail; you will ruin your own health and that of the child. You will have to take your choice between your line of duty to your child and to your family, in setting an example to society between that which is really conducive to your own ulterior and greater happiness, and to meeting the claims of society in its modern form. You cannot do both. You must cut off all these extra demands. You must keep the mind quiet, and bring the brain into thorough discipline, so that that miserable condition of the nervous system shall not exist which works all the energy out of one, prevents the proper digestion of food, and impairs the health. All these are points which go to the root of this question

A very large majority of the ladies of my own acquaintance on the other side, who are a fair sample perhaps of the ladies living in London society, have acquired the habit of using wine, table-beer, stout, and frequently whiskey and brandy, to a large extent, I think, owing to the mistakes on the part of my own profession in the advice which they have given. The result is that the babies of the present generation are never sober from the earliest period of their existence until they have been weaned. This is a shocking statement for me to make, but I should not be doing my duty here unless I were to make it as broadly and strongly as that. It is a simple fact. The mother's blood, practically, is entirely in common with that of the child. You know perfectly that, if a mother takes even an ordinary dose of such medicine as castor-oil, it will very often affect the baby more than it affects the mother; that one has to be exceedingly careful in prescribing for mothers simply on that ground. Now, what does that simple fact with which all you mothers are familiar show? Why, it shows this: that the soothed condition of the baby after the mother has taken half a pint of beer is really the first stage of drunkenness in that child. When I hear a mother telling me that whenever she takes a little whiskey and water or brandy and water because the child is fractious, and she finds that her milk agrees with it better, I am obliged to ask her if she knows what she is doing? If she knows that she is simply making herself the me-

dium for distilling into her babe's system almost the whole of that spirit which she takes into her own, and whether she is aware that that soothed condition of the child is really the first stage of drunkenness. The fact is, the baby is only the infinitely more sensitive extension of the mother's system ; and it is more likely than any other part of the mother's system to receive the things which are injurious that are taken through the medium of the mother's diet. Well, now, ladies, bear that in mind when you are told to take wine, or beer, or brandy ; understand that you are merely distilling that wine, spirit, and beer into your child's frame ; that the very mould which that child is to preserve for the rest of its life is being constructed out of blood that is alcoholized—out of a condition of the system in which intoxication is the real substantial element for the first twelve months of its growth. I ask those of you who may have thought it your duty to recommend young women who do not know better than to take those things whether that is not a grave and important fact for you to think of. And who is there among us whose duty is less than that of women ? It is said that the man is the head of the household ; but all women who are worth anything practically stand at the helm and guide their husbands by a silent influence which always asserts its sway, if she is a wise and good woman. Look at the influence which a woman can exert over her husband, who is often weaker than herself in those matters, for he has to come in con-



fact with men of the grossest and lowest natures in trade and out in the world. Just ask yourselves if it is not the duty of women always to refine and etherealize man; and she does do so if she be a good, true, and noble woman. Look, again, at the influence which woman is to have upon the next generation. Who is it that is to make the next generation? Is it the men? No, it is the women. It is the everyday life of the mother that forms the mind of her son, and that forms the very instincts of her daughter, up from eight, nine, yes, to almost any age, while she has unalloyed influence for the first ten years in framing the constitutions and in moulding the minds of those children, though, perhaps, we do not always realize this truth so fully as we might. I say, then, ladies that it rests with you what the next generation of humanity is to be. Does not this duty press upon you, not merely in reference to your husbands, but in reference to those children who are growing up, and who with tears in their eyes will speak of the good mother who tended them, and whose life was a bright example hung up in their memories? The best advice one can give to a daughter is, "Never do anything when your mother is not present that you would not do when she was present." I have occupied more time than I ought to have done in submitting to you in this desultory manner the observations that occurred to my mind. I assure you that they are the result of very earnest attention on my part; and I believe that, if you will carefully



and thoughtfully look at this question, you will arrive at the same conclusion to which I have come. I can assure you that the use of beer, wine, and spirit, so far as my experience goes, which is not inconsiderable, on the other side of the Atlantic produces in woman a redness and coarseness of skin of which you have no conception; and those outward and visible changes which are perfectly shocking in some of the London ladies who are in the habit of taking a great deal of stout are merely samples of the changes and degradation which go on through every nerve and tissue of their bodies. I reassure you that the use of these intoxicating beverages is a delusion so far as the child goes, and a mischief to it; that whatever a woman can do and ought to do she can do with pleasure if she be a right-minded, good woman; and that she can do these things best upon the kind of diet, the personal discipline, and the mental self-control which I have made so inadequate an attempt to shadow out to you this afternoon.

Mrs. HELEN E. BROWN. Ladies, we have all been greatly interested in the common-sense argument and the useful and practical suggestions of our distinguished visitor. I move that a vote of thanks be passed to Dr. Edmunds for his able and instructive address.

Mrs. Rev. WILLIAM H. BOOLE seconded the motion, which was adopted by a rising vote.

Mr. DODGE said:

“The National Temperance Society have felt

it a very great privilege to be permitted to hear from so distinguished a man as Dr. Edmunds, of London, who is casually in our city. He simply left home on a short vacation to take a rapid run through our land, not coming here at all to make addresses, but solicited by us to give the people of our city an opportunity to hear from him—a physician of high standing in his own country, and one who has paid great attention to the subject of temperance. As we take up our daily papers, and read the results of intemperance, and as we look around the city and see the multiplication of places where liquor is sold, and the thousands of establishments where it is sold in almost utter defiance of law, while our police and our justices pass by and close their eyes to the destruction that is going on with such fearful havoc, it becomes the friends of temperance to bestir themselves. The restraints that are already put upon the sale of intoxicating liquor are considered so onerous on the part of the liquor-dealers in this city that they are holding conventions, forming associations, and raising large funds—not the few thousand dollars that come reluctantly into the treasury of this Society in the course of a year, but commencing with a hundred thousand for New York and fifty thousand for Brooklyn, with power to call at any time upon the ten thousand individuals engaged in the sale of liquor for any reasonable amount that they may require to extend their power and influence. As we have looked over our foreign papers, and watched the

last election to Parliament. we have seen the terrific power of publicans in England. Those who are engaged in the effort to stay the progress of intemperance there feel that just in proportion as these men exert their power and vast influence in electing members of Parliament who will oppose what is called there 'the Permissive Bill,' which is similar to our local-option law, they should put forth equally vigorous efforts in behalf of temperance. The good people of England are beginning to realize the power of the liquor-dealers, and such is the interest manifested there that a meeting called in London, as this has been in New York, would bring together thousands of people, filling their largest hall. The interest in this temperance movement at the present time in other places than New York is very greatly on the increase, and a great deal is being done throughout the land. We do not feel discouraged, but those of us who for thirty and forty years have been endeavoring to stay the progress of this terrible evil in our city, do at times become disheartened when we see our Christian friends and our pastors, who uphold every good cause, indifferent to the curse of intemperance."

## THE DIETETIC USE OF ALCOHOL.

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HON. WILLIAM E. DODGE presided, and introduced Dr. EDMUNDS, who said :

I have very great pleasure in responding to the call which my friend Mr. Dodge has made upon me in this matter. I am sure I do not know any subject upon which one ought to feel more interest than the dietetical and medical use of alcoholic beverages. I find that I have already had the privilege of speaking twice in this city upon the subject ; and although it is one, I was going to say, upon which we might speak for à week, and one would never be wanting in material for illustrating various topics connected with it, and various matters which rise out of one's heart directly one thinks upon this great question, and the result which the use of alcoholic beverages is producing upon the Anglo-Saxon race, and wherever alcoholic beverages are used, yet I am at a loss as to what to say because I have had a different audience each time, and it will be difficult for me not to repeat things I said this afternoon, and also a fortnight ago when I had the pleasure of speaking here.

Before I can ask you to join with me in considering what are the dietetic and medical uses of alco-

holic beverages, it will, perhaps, be well that we should come to some clear understanding as to what alcoholic beverages are, and then I would ask you to go on with me and consider the various arguments which are used in support of the general use of alcoholic beverages, then of their use as medicines, which will be an entirely different category of considerations; and then I would ask you to go on and see what are the advantages and disadvantages, and endeavor to strike a balance between these in order that we may come to some general result with regard to those other points in which many of us here present will differ. In the first place, I will take, if you please, those points upon which none of us will differ, or, at least, upon which none of us who are acquainted with the subject will differ, and in which I shall be able to carry those with me who have already paid attention to the subject. We may arrange alcoholic beverages under three classes—the malt liquors, wines, and the distilled liquors or spirits. Malt or corn liquors, which are made from any substance containing starch—wheat, oats, barley, Indian corn, as it is called here, potatoes even, anything which contains starch—will produce alcohol. You have, again, in the grape, and in many of the sweet fruits, a soluble form of starch which is known as grape-sugar; and from all solutions containing grape-sugar alcohol may be directly produced without the preliminary process of malting. The starch is, in fact, insoluble sugar stored up in the vegetable as

food for the young germ of the plant before it develops leaves and can gather in sustenance from the soil and make its own food; and the process of malting is simply that which converts insoluble sugar or starch into soluble or grape-sugar. The sweet wort made from malted barley is a very different thing indeed from anything which you could get from barley before it was malted. We get starch in the ordinary corn—grain—and in many vegetables; we get soluble sugar in the grape and many sweet fruits. From all substances, capable either of producing grape-sugar by the process of malting, or capable of yielding grape-sugar without the process of malting, you may produce alcohol. Now, the distilled liquors are simply those liquors which have been distilled from fermented solutions of sugar. For instance, if you take any corn-malt and ferment it, and then distil the product, you get a pure, colorless spirit, contaminated or mixed only with various substances which give the flavor, as, on the one hand, from potatoes, which is exceedingly coarse and almost poisonous in character, and, on the other hand, from the grape, which is an exceedingly agreeable aroma. And so peach-brandy, or brandy and spirits of various kinds, which in all cases consist of alcohol, are flavored by those various flavoring ingredients which are peculiar to the substances from which the alcohol has been made. If you take the ordinary beers, and of course they vary almost infinitely in the amount of alcohol which they

contain—in the amount of undecomposed sugar which they contain—and which makes the new, fresh beers very different in their character to the old and stronger beers; and then, again, they vary in relation to the various flavoring ingredients which may be contained in the original substance, or which may be used for the purpose of pleasing the palate of the consumer. If you take wines, you see that they differ in their color. How is that? It is because some grapes have dark and some have light skins; and in some wines you get the color simply by leaving the skin of the grape in them. I am now dealing with wines which are really made from grapes, from which, I fear, a very small proportion of wines are made. You will get a varying proportion of alcohol in those liquors, which will depend upon the proportion of sugar which the original solution contained. From the rich grape, when perfectly fermented, you will make a strong, heavy wine, at first fruity, that is, containing undecomposed grape-juice, in all its elements almost, gradually decomposing; and as the wine grows older, it gets less fruity, less saccharine, but stronger in alcohol. With regard to distilled spirits, you may have them of any strength or of any purity. This you may obtain by repeated rectification, by chemical purification. With regard to the potato, the malt, the brandy, or any other flavor peculiar to the substance from which the spirit is made, you may eliminate all this and get pure alcohol.



Now, you know that pure alcohol may be obtained absolutely devoid of water, in which case it weighs about four-fifths the weight of the clear bulk, water being very light. It is, as you know, inflammable; it will burn in a lamp. It is, in fact, the pure substance which you recognize as the essential principle in all these liquors. You may get it from pure alcohol down to the ordinary brandy or gin or rum or liquid that men drink, which you may say contain upon an average about half their quantity of pure spirit, the rest being water with a little coloring and flavoring matter, varying in each case with the spirit with which you are dealing; so that if you take pure alcohol and allow fifty or even forty per cent. for the degree of spirits, it will give you the measure of their strength.

Now with regard to wines. You cannot make a naturally-fermented wine to contain over something like twenty per cent. of alcohol, and for this reason: that alcohol is itself a very powerful antiseptic. You know we use it for preserving anatomical specimens, and they will keep any number of years in it without decomposition. Alcohol may be used as a pickling agent, for it will preserve any organic substance perfectly. That is just an illustration of the antiseptic properties of alcohol. It is such a substance in this respect that when twenty per cent. of it has been generated in a solution of sugar, it will prevent the decomposition of the remainder of the sugar; and the result is, wherever you have seen more than

twenty per cent. of alcohol you may know absolutely that the remainder has been artificially added to the wine—that it is not a natural wine. Indeed, I should say it would be very difficult to make a pure natural wine that contained more than seventeen or eighteen per cent. of alcohol. That will vary according to the perfection with which the process is carried on. Now take the ordinary wines that are imported and that are used; you have an amount of alcohol varying from twenty-five per cent.; which would be a quarter of its bulk, down to about seven per cent. The strongest sherries and ports contain, perhaps, twenty-five per cent. and the weakest clarets contain about seven per cent.; champagne will contain eleven, twelve, or thirteen per cent.; and so you may go on with these various wines containing these several proportions of alcohol. The wines also contain the coloring matter due to the grape-skin and the grape-stone, if the stone is crushed; and also matter which may come out of the wood of the cask will stain the wine. The cask will also contain undecomposed grape-juice as well as the aroma of different kinds of grape. I think I may fairly point out to you that we take all these liquors, whether wines or beers or spirits, for the alcohol which they contain, and that there is none of them that we should take if the alcohol were removed from them. I should like to feel that you go with me to that point, because it enables us to leave out of consideration a vast deal of hazy matter that is imported into this question. You

know we have a notion that stout is one thing, pale ale is another, and bitter ale is something quite different again. We take a little bitter ale for the sake of digestion, ladies take a little stout when they have their babies to look after, and gentlemen are told that they must take this, that, and the other, and that there is a great deal of difference between sherry and port, and so on. Well, my own impression is that there is very little difference between these things; but if these substances be pure and cannot harm us, and we need them, we can get them a great deal more easily, cheaply, and safely without resorting to the use of wine for them. Of course a very small number of grapes would give you all the sugar you would get in a pint of strong wine. If you want a little bitter for the sake of an aromatic tonic, it is much cheaper and more simple to have a few hop-flowers in a tea canister, to drink a little hop-tea at dinner-time instead of bitter ale. But you know that when your friends tell you they take a little bitter ale because of the hop, you know it is all nonsense, and they do not expect you to believe it. They take it for the spirit it contains, and the hop that is put in it is a very gentlemanly excuse for drinking beer. We have come here to discuss this matter to-night; we do not want to deceive ourselves with any notions of that kind. A little simple hop-tea, which can be made as easily as ordinary tea in a tea-pot, will contain all the medicinal and aromatic virtues and none of the injurious properties which alcohol exerts upon the

stomach. But you know perfectly well they would not take hop-tea if you told them all that. Let us illustrate this one point further for the sake of some young people who are here and perhaps have not thought about this. Take the difference between brown stout and pale ale; what is it? Why, in the one case you have the malt a little burned, and in the other case it is simply dried pale. There is just about as much difference between brown stout and ale as there is between dark-toast water and light-toast water. And so, if you will go with me that far, you see we can cut short our consideration of this subject to-night, and come down to the properties of alcohol pure and simple, and ask what that is, how it is obtained, what it does for us when we take it, how it affects the body, in what way injures us, and in what way benefits us? We know what alcohol is, for we have discussed that question. It is pure spirit, called "alcohol" from an old Arabic name. We found it existing in these various percentages in the liquors named; we know that these beverages are taken because of the intoxicating essence in them, without which none of them would be taken; and we know that all these liquors affect the body just in proportion to the percentage of alcohol which they contain. Well, now, I have already stated that alcohol is made from sugar. There are various arguments that one is in the habit of meeting with, and some of them that I generally meet with are from those friends who are inclined to throw the Bible

at me upon this question. I always get out of the way when they do that, because I do not think the Bible was intended to teach us what to drink, any more than that we are to oil our faces, or do a hundred and fifty other things that we find in the text of Scripture when taken literally. I do not think that the letter of Scripture was intended to guide us upon a question of this sort at all. We are under different circumstances; we are here under a different civilization, when capitalists manufacture these things called "wines" by wholesale, and set them up for sale at every corner of the street, exposing persons to an amount of temptation which two thousand years ago had no existence. There is no doubt at all that in many cases where wine is spoken of in the Bible it simply means the fruit of the vine, that is, grapes and grape-juice; there is no doubt at all about that. I do not think that is the case always. Still there is no doubt that intoxicating wine and other wine also not intoxicating—indeed, a pure sirup made from grape-juice, than which nothing could be more beautiful or nutritious—is spoken of in Scripture. The grape, in fact, is one of the most beautiful, nutritious, and wholesome of all the things that grow upon this earth. But I must not get discursive on this matter. What is it that we hear? Our friends tell us that "they take these things because they are good creatures of God." I dealt with that topic here the other evening pretty fully.

Again, people say that these things are made

from food always, and they talk about "taking grapes in the shape of wine," as well as of taking them in the shape of fruit. And so they confuse their minds with a sort of notion that because these beverages are made from substances which undoubtedly are among the foods, that therefore these things themselves are food. Well, now, that does not follow logically, but there is some semblance of justification or suggestion in the idea to the cursory thinker. Let us look into the matter. Bear in mind this fact that alcohol, as I explained here in a previous address, is always made from sugar. It is made by the decomposition of sugar. Sugar when fermented under certain conditions splits up into two substances—the alcohol, which remains in the liquor, conferring upon it its intoxicating power, and which gradually takes the place of the sweet, nutritious character of the grape-juice: and another substance, which is a gas and not a liquor, which bubbles up through the liquid as it is formed, carrying the impurities of the liquor to the top, forming the scum which you see upon any fermenting liquor. Now, it will be obvious to you that, if alcohol were good as a food because it was made from a food, the other substance, the gas, which is its twin sister, as it were, being also made from food by the same process and at the same moment, would be good for food. What are the properties of that gas? We call it carbonic-acid gas; fixed air it has been called. You may test its properties in any bottle of soda-water, or aerated water, or champagne, or spark-



ling wine that you open. Well, now, what are those properties? If you will open a bottle of soda-water or of champagne which still contains some of the properties of this carbonic-acid gas within the liquid, and just let the effervescence go off, then take a lighted match, pass it down below the nozzle of the bottle, and—what happens to it? If you will try that experiment, you will find that the fire will go out just as if you put it in water. Carbonic-acid gas stops ignition; it stops that chemical action which displays itself in the place of fire. Now, it is customary, when builders and other men have to open sewers and to go into wells and old vaults and cellars, if they are prudent men, to first let a lighted candle into the well or vault, for they know practically that wherever a lighted candle will burn there a man can descend with safety, and where the candle will go out there the man's life will be extinguished, just as the flame of the taper will be extinguished. In fact, that carbonic-acid gas which is produced side by side with alcohol from the decomposition of sugar is one of the deadliest narcotics we have. You all have read of deaths which occur from brewers' and distillers' men going down into large vats. When the liquor, after fermenting, has been let off, the vat will still remain full of a heavy gas—this carbonic-acid gas which was flowing upon the top of the liquor; and if a man goes down in these large vats upon a ladder, the moment his mouth gets below the gas, though an invisible air, that instant he will fall down and die if he is



not rescued within fifty seconds. I call your memory back to the deaths under these circumstances in order that you may realize for yourselves what are the associations of this substance of alcohol which we take so frequently. You can demonstrate to your own senses that the gas which comes from the decomposition of sugar in the act of fermentation is one of the deadliest life-extinguishers that we have. If you simply put either a match, or a mouse, or a fly, or a fish, or any other creature, into water or space filled with carbonic acid-gas, in all cases you will get life or fire extinguished immediately. Thus you see it is quite clear that this carbonic-acid gas does not possess any feeding or beneficial properties, although it is made from one of the most beautiful and useful of our foods, sugar. Now, you will say I am importing prejudice into this question. I am not asking you to jump to the conclusion that, because carbonic-acid gas is a deadly poison, therefore alcohol, its twin sister, is also a deadly poison. That would be importing prejudice into the argument. I am merely trying to clear away prejudice in its favor by showing you that which comes out of these *à priori* considerations. Let us dismiss prejudice and take alcohol as we get it. Let us examine the effects of alcohol upon the body, and try the influence of it upon fishes and animals, and upon men, women, and children, and what do we see? Well, some portion of the ground upon which we are now going will be debatable; there

is, however, a large portion that is not debatable, upon which we shall all be agreed at once, some things which we know. The logical method, I believe, is to clear away those points upon which we are all agreed, and then see what light can be thrown upon those points wherein we differ. What is the effect of alcohol upon the human body? If you have some fish that you are not particularly anxious to preserve and they are floating in a pail of water, put a few ounces of alcohol in, and you will soon see its effect upon them. They will all turn over and die in a few minutes. If you expose a fly or any insect under a tumbler to alcoholic vapor, you will see that it will kill the creature. If you will take the flame of a candle and enclose it in an ordinary small gas-jet with a cylinder round it, so long as the air traverses the tube freely, so long as it can get oxygen, the gas will burn perfectly. Take a piece of wire with a little bit of cotton wool upon the end of it, and dip that in spirit, and just bring that near to the hundredth part of a glass of brandy, bring it into the current of air that is passing up through to oxydize the flame—I do not ask you to stop the current of air that is going up to keep the flame alive—I merely ask you to do that which you do with your bodies when you take a wine-glassful of spirit. Contaminate or infuse into the blood just a small quantity of spirit, and you get a certain result; contaminate or infuse into the current of the air which is feeding and oxydizing the gas-flame a

small quantity of spirit, and you will get the very same result that you get upon a man when you intoxicate him. You will see the flame will instantly become smoke, and that flame will, in fact, absolutely illustrate and show you that reproduction of those vital processes which go on in the recesses of our tissues, and through the medium of which the forces of the body are elicited. It loses its brilliancy; it then becomes smoke; and, if you allow the amount of alcohol in the current of the air to exceed a certain proportion, the flame will actually go out, just as a drunken man will die when he has more than a certain quantity of alcohol in his blood.

Well, now, there is the effect of alcohol. You can try this experiment for yourself, and you will find just these results that I am suggesting to you. Take another experiment. If a man drinks a pint of liquor, you see that he will be killed there and then, just as if he had taken a teaspoonful of prussic acid. Why is that? The man's throat and lungs are paralyzed by the influence of alcohol, and the result is that life is extinguished; and when the spark of life is extinguished we have no means of recalling it; we have no means of resuscitating life when once the heart has ceased to beat for a few seconds. If you give the man half the quantity, what do you see then? He is not killed, but he is what you call intoxicated. What does intoxicated mean? It is simply the word *toxicum*—poisoned—he is poisoned; recollect that. When you say a man

has just been a little intoxicated, you are simply using something that is not Anglo-Saxon, in order to wrap up and disguise the fact that the man has been poisoned. If you try to rouse that man's nervous sensibilities, you can get no response out of him. Well, now, what do you think those phenomena are? What would you call them? Would you say that had stimulated the man? Would you say that was a strengthening agent which he had taken? I suggest to you that you have there the phenomena of paralyzing every nerve the man has in his body and stupefying every faculty; he has paralyzed all his muscles. If you have paralyzed all but those rudimentary animal functions which will enable a tortoise still to live when you have cut his head off, if a man is a breathing, pulsating machine, for a time, in whom all those faculties by which usually man is distinguished from the brute are in a state of abeyance, the alcohol has in fact stupefied and paralyzed all but the most rudimentary functions of animal life. Now, I do not think there is any one here who will fail to agree with me up to this point, because these are facts that must appeal to all our senses. Instead of a man taking a pint of spirits, which would kill him outright by paralyzing the heart and the lungs as well as these other functions, when he takes half a pint you will have the heart and lungs laboring to keep the man alive until by the process of respiration and perspiration he will get rid of the alcohol, just as a sponge, after you had

wet it, would get dry. I need not tell you that you can smell the cause of this. You can smell the rum, or the beer, or whatever it may be, coming out of every pore of the man's body; and that is the way in which the alcohol is got rid of; it is got rid of just as a sponge would get dry. If you put a sponge in water, it gets soppy; and, if you get alcohol into a man's blood, you might say that he gets soppy; and just as the water will dry out of the sponge, so alcohol exhales out of a drunken man, and so his senses gradually recover themselves; he wakes up again, he gets around, but his blood is still poisoned, leaving a splitting headache; his blood is loaded with refuse and fetid matters that ought to have been oxydized and got rid of, but which have been retained in his body, because all his functions had been employed ejecting this poison which he had put down his throat. Let a man take a quarter of a pint of spirit in water, and what do you see there? Well, he can stand on his feet, but you see he cannot walk straight; he can see, but he cannot see straight; he will see—as I said the other evening—two policemen where there is only one, and he will walk so buoyantly that the pavement rises up and strikes him on the head. Has that man taken a strengthening agent? Is that a stimulant? Or have you got there half the quantity of the same effect which you had when he was lying intoxicated or drunk upon the pavement? I submit without fear that you will dispute the proposition, that

you have an effect of the same kind to half its extent. Well, now, suppose you have half the dose again, what do you see? The man has not got "more than he can carry"—to use a vulgar expression—you say he is—what shall I call it—it is generally called "comfortable"; I should say foolish. He will make an infinite number of promises, he will be "affectionate drunk," as it is called, or "stupid drunk," or "violent drunk," or any other form of drunkenness which will show the nature of a man, the old *in vino veritas*; that is, you will see the man with all his awkward graces and wanting all the polish which he will otherwise put on; you will see him minus all these things. I submit to you that that man is not as good a man then as he is when he has no spirit in him. If you test that man's debating power, the accuracy of his memory, his freshness with regard to dealing with any matter which does not devolve on mere emotion or cant phraseology, that he has stuffed up and is apt to come out whenever he opens his mouth by a kind of chemical process; the man may be able to lecture, to let off a speech that wants to come out, and perhaps will let it off a little more vigorously and freely than he would under other circumstances, but he is very much more in a condition to make great mistakes; he is in that condition which a fraudulent commercial man wishes and intends to get him into in order to rob him in a subsequent transaction. Why is it that your sharper in business is so ready to offer his customer a little



wine? It is simply because he wants to cheat him—nothing else. It is cheating and robbery to poison a man, for it is nothing more than a milder form of that hocusing which may take place in the lowest places in your city. There you have in the knowing act of the sharper over the less wary man the proof of the effect which alcohol has, that it puts a man at a disadvantage so far as his real intelligence goes and so far as all his higher business faculties go. Now, you see we bring the point down, and if you follow me you go from the fatal condition which kills a man by paralyzing and stupefying him down till we merge less and less and less the faculties of the man; you may go down to the single glass of wine that your doctor takes in order to bring him up to the scratch when he has a little difficulty that he is nervous about, or that your clergyman takes when he can't get the steam up as he goes into the pulpit, or that your business man takes when he tells you that he can't get on so well without a little stimulant. In all these cases you have one thing: drunkenness, less in degree if you like, but always the same in its paralyzing and stupefying character. If that be so, if you can follow me in this argument, I think we shall arrive at the position from which you will see your way to unravel the mysterious attributes with which this strange and multifarious substance is invested. How is it that, when we have an addition to our family, the nurse thinks she must wash the baby in gin in order that it



may not catch cold? The doctor says, when we get old, we must take a glass of wine to give us strength. If we have a christening, if we meet an old friend, or want to rob a customer, under all these circumstances the inevitable bottle comes in. If it is very hot, we take a little spirit to keep cool; if it is very cold, there is nothing like a little spirit to keep you warm: that it not only promotes "the feast of reason and the flow of soul" when we are together in society, but will enable a man to do more work than nature designed him to do—that is, "the still, small voice" of fatigue shall be blunted when nature intended that it should check the man's action and warn him that he has done as much as he can do without injury to himself. Now, if you see that I make out the position that I want to submit to you—that in all these cases you have simply the edge taken off the mind, the keenness taken off the powers of perception, and a man degraded one shade by drunkenness—you see the real fact, not that the man can stand cold better than he could before, but that he does not feel the injury which the cold is doing to him; not that he is less liable to be injured by sunstroke if he goes foolishly out into the tropical sun, but that he simply does not feel the risk which he is incurring, and that he has blunted that "still, small voice" of nature which was given to him in order that he may avoid this sun and escape that risk of sunstroke on the one hand, and that he might avoid the cold, or hurry

home and escape that risk from its bite, on the other, of which the smarting and numbing of the fingers formed the preliminary warning. When a man works upon what he calls stimulants, he is taking that which is really only a narcotic, only so much drunkenness, which blunts the sense of fatigue, which is to the man's constitution what the sentinel is upon the walls of the citadel. I need not tell you that you do not make the citadel safe because you put the sentinel to sleep; I need not tell you that the ostrich who has sought to hide its head in the bush when it finds its pursuers are gaining upon it is none the less on the road to destruction. If that be so, you will get the key to all these contradictory and absurd assertions about the benefits of alcohol in sickness and in health, in mental suffering and in physical labor, which are in themselves utterly contradictory, but which you will find, if you are to observe the practical experience of mankind, are all alike produced by the use of alcohol. Well, you see, we have come down here now to this point, which is a debatable one. I have now submitted to you the construction which I would put upon these phenomena upon which some of us may differ, and I will leave it with you. I do not think that point of the argument can be carried further by any process of logic or by any statement of fact. I merely say this: that down to the point in which a man takes what is called "more than he can carry," the effects of alcohol

are undoubtedly those of a narcotic, of a paralyzer, a stupefier; and I say to you that, until you have some reason to assume the contrary, you are bound to assume that the other and lesser effect is an effect of the same kind, and varying only in degree. I would point out to you this: that unless you adopt that position—I mean in reference to the effects of what are called the stimulating doses of alcohol—you must adopt this other position, which is the only alternative, that, by lessening the amount of the dose, you reverse the nature of the effect; that that which in large doses is a paralyzer and stupefier, in small doses becomes a stimulant and a strengthener. That is the only logical alternative to the other position which I have endeavored to put before you, and which to my mind is the only one upon which every properly-constructed brain will ultimately rest. I will not ask you to bear with me any longer while dwelling upon that topic; I must pass on rapidly.

There is a question, and it is one which cannot be avoided this evening, and that is whether alcohol serves as food. You say this is also one of the debatable questions, and it is one which we shall be enabled to construe partly by the facts which we have now in our minds. Alcohol is made from food. Does alcohol serve as food? Well, so far as I am acquainted with medical science on this question, I do not think we are in a position to give an absolute verdict upon it. But before I deal with that in anything like de-

tail, I must ask you whether you have in your minds a definition—for in dealing with these subjects I like to get clear ideas before us and not run away with mere phrases, which is the great source of failure in all these matters—I should like to ask, for the benefit of some young persons who are here, whether we all have a perfect idea of what a food is; whether we are prepared with a definition satisfactory to our own minds that will include every food and exclude none. I will offer you a definition—always a dangerous thing to do, because it is so much easier to throw stones at other people's glass houses than it is to protect one's own—nevertheless, I will offer you a definition. A food is that substance which, being innocent in relation to the tissues of the body, being easily digestible and absorbable into the blood, is capable of being oxidized in the body, and giving up to it forces which the body will afterwards expend in its action. I am afraid that is complicated. You will see that there are four terms: First, it must be innocent in relation to the tissues of the body. That is obvious; because if not, although it may answer to the other terms, it is quite clear that we could not use wisely as a food that which would damage the tissues of the body in the process of feeding. Secondly, it must be a substance easily digestible and absorbable into the blood. For instance, sawdust contains as much absolute nutriment as starch or corn almost; and if you were to test this by the process of burning in a fireplace, the fireplace has the faculty of oxid-

izing sawdust as easily as oxidizing wheat or anything else of that sort; but the one substance cannot be digested in the human furnace; it cannot be digested in the stomach, and therefore sawdust is not a food, though it contains all the elements of food of one class, and will make as excellent fuel as starch or any other substance that we use as fuel. So that you see a food substance must not only be innocent in relation to the tissues of the body, but must be easily digestible and absorbable into food. Thirdly, it must be capable of being decomposed or oxidized in the body, so as, fourthly, to give up the forces which the body will afterwards expend in its vital action. Now, that is the definition of a food; and every substance which will answer to these four terms is a food. You have, then, merely to deal with prices and other casual circumstances in order that you may ascertain the value of one or of the other substance as a food. The very same definition would hold good almost with regard to a furnace. For instance, coal is to the locomotive what corn is to a horse or food is to a man. You know the coal is oxidized in the locomotive furnace, and it can never be oxidized again so as to serve as fuel. It gives out force; where does it get this force from? What is coal? Coal is fossil wood, and wood is the remains of trees which grew in primeval ages, when that part of the surface earth was exposed to the glaring sunlight, and those trees actually absorbed that sun force, incorporating that light and heat into its own substance

as a cement would be used to hold bricks together to form a house. That wood substance becomes fossilized into coal, which yields up its long-latent sunlight and heats the water of the locomotive, producing mechanical force that conveys you to your destination. That is a perfect philosophical parallel that runs "on all fours" with what food is to the human body; and unless you see quite clearly how food acts, you will never understand how to make the best of your life and how to feed yourself properly. Suppose instead of coal you take a sheep. That sheep feeds upon grass, and takes the substance of it and incorporates it into its own body, refining, sublimating, and concentrating it, as it were; you have the substance of that animal and use it as meat. Now, suppose you take a mutton-chop and cut the fat off it and make it into a candle weighing two ounces, instead of eating it. What is that fat composed of? You have the wick, and in the fat of the candle two substances—carbon and hydrogen. It is merely a solid gas, nothing else. You set fire to it through the medium of the wick of the candle, and heat decomposes it, and converts it into a gassy form of carbon at a temperature which enables it to unite with the oxygen of the atmosphere which surrounds it. In that combination you turn the carbon and the hydrogen of the fat into a carbonic-acid gas and the water out of which the grass originally built up the substance of its leaves, and in so doing you set forth again that sun-ray which was incorporated with those ele-



ments in order to form the blade of grass which was subsequently concentrated into the substance of the sheep's body, which is afterwards melted out and turned into a candle. And so far as material weight goes, you will find that, if you carry the fumes of the candle through a long glass tube, kept cool by ice, you can actually reproduce the water upon which that grass was fed, and, if you pass the uncondensable gas into transparent lime-water, you can precipitate the carbonic-acid gas there in the shape of an insoluble chalk, which will fall to the bottom. Now, in that water and in that chalk you will have the very two ounces which made up the weight of the candle before it was burned. You have something else also, the imponderable cement which holds those substances together—the sun-ray—and that has come out to you as the light and heat emitted from the flame of the candle. This is precisely the same process as we had with the coal in the locomotive; it is simply a little different kind of fuel. Suppose, instead of making that mutton-chop into a candle, I had eaten it for my dinner before I came down here, and I had digested that fat, my body would be to the fat of that mutton-chop precisely what the wick of the candle is to the fat of the candle. My tissues and my breathing apparatus is simply a contrivance for oxidizing that fat and getting out of it its force; and, if you were to take the breath which is going out of my lungs now, and pass it through a cold tube, you could reproduce the very water you would have



had from that candle if you had turned that mutton-fat into a candle instead of making me use it as fat. You could reproduce the carbonic-acid gas by using the same process, by passing it through lime-water and precipitating it as chalk. If you weighed it, you would find that my body had been what the wick of the candle was. My body had been an instrument for decomposing and oxidizing the material substance of that food into carbonic-acid gas and water, and the force which was derived from that food, in the course of its decomposition in my body, had appeared, not as light and heat, as you would have had them in the candle, but had appeared as motion and heat, as you would get them out of my body in my action here to-night. If I have succeeded in making this clear to you, you will understand what a food is and how it acts. You will see that a food is a substance innocent in relation to the tissues of the body; that food is a substance easily digestible and absorbable into the blood; and that food is a substance decomposable in the body, and capable of giving those forces to the body which it needs in order to have the play of its vital action. We have only to have our minds furnished with these facts to understand about the nature of food. What I have told you about these particular specimens of food that happened to turn up in my mind holds good with all foods, with sugar, flesh, and all substances which serve as food. The only difference is that in some of them there are some-

what more complex reactions, inasmuch as there are foods which have to repair the wear and tear of every fabric of the body; they go through a kind of replacement of the fabric of the body so as to renew the worn parts, and they themselves are gradually burnt up again as they become worn out and effete. But the process is precisely the same, subject to those two lines of thought—that one part of the food has to go through substitution and renovation of the worn-out tissues of the body before it is oxidized and gives up all its force, and the sugar and other substances containing no nitrogen go directly to the furnace, and are used to help all in one great source of waste, and that is the demand for heat. Let us look at alcohol, and see whether it answers to the definition and character of a food, and if we look at it in that way we shall easily arrive at a fair and sound conclusion. You know that fuel which is burned in the locomotive, fat which is used to give candle-light, and gas which is economically burned for the purpose of heating or lighting, does not escape as gas; for, if you let the gas escape into the atmosphere as gas, you know it is not serving to give light or as fuel. If you could burn your coals after they had been through your furnace, you would know that they had escaped combustion and had not served to heat your boiler. Just so, any substance which has served as food in the body, and has been decomposed and utterly changed, has given up its force in the very act of serving as a food; it can-

not have served as food unless it has given up its force. Therefore, you see, a substance cannot serve as food twice over. A substance that serves as food never leaves the body again as it went into it. You may test it with regard to sugar or any substance that is taken in any reasonable way. How do these various tests apply to alcohol? First, is alcohol innocent in relation to the tissues of the body? What is the reply? Why, alcohol is perfectly well known to be one of the greatest factors of disease that we have. What you hear in the hoarse voice and seared throat of the brandy-drinker you find in the stomach of the dram-drinker also; you find there a seared and damaged stomach that, under the influence of alcohol, has lost its power of digesting food, and which is always associated with that stage of drinking when a man has become a broken-down sot, weak, feeble, tottering, and imperfectly nourished; and that which you see in the throat and stomach you will observe in the liver, which is the great filterer of the digested and absorbed materials that are to go to make new blood. And so remarkable an organ is it, and so active, standing, as it were, as a watch over the entrance of injurious substances into the body, that if we, as toxicologists, have examined a man that has been poisoned slowly by arsenic or with other substances, we go to the liver to find it. Though it leave no trace in the stomach, and though we find it nowhere else in the body, we shall always find arsenic

accumulated in the liver, so far as it can be there, and we produce it in its metallic form seven or twenty years, it may be, after the man has been poisoned and buried. Alcohol has to pass through the liver, and you know as a common fact that drunkards have liver disease; that is the organ that is mostly affected. What is the outward physical sign of disease of the liver in persons who drink? The nasty, sallow, unhealthy look that you get in the first stages of drunkenness arises from the fact that the liver is already damaged. Alcohol irritates it and prevents its normal action, so that it is unable to do its own proper duty and fails to secrete the bile. Of course, if you put surplus work upon an organ, it is unable to do its own properly. Where does the spirit go next? It goes into the lungs. Everything that escapes the liver has to pass through the lungs and be eliminated, if possible, before it can get into the general current of circulation. Where do you find it? Directly after a man has swallowed a little spirit, you can smell it coming out of his breath in an instant, and, if he were to shut his mouth, he could not get rid of it. Why is that? That is because the lungs have other duty thrown upon them with regard to that portion of alcohol which the liver fails to excrete back into the intestines, and the result is there is extra wear and tear thrown upon the lungs; the lungs are unable to oxidize those effete matters which it is their business to keep the system free from. You will realize the full importance of the

action of the lungs if you recollect that a man who was immersed in water fifty seconds, so that the action of the lungs might be stopped, could never be resuscitated. He is killed, poisoned by the mere accumulation within the blood of the refuse matter of his own system. When the lungs have thrown upon them the duty of excreting the alcohol, of course they cannot oxidize and excrete refuse matter so completely, hence that peculiar, penetrating, most disagreeable odor which the man who drinks always has about him. You know that a man or woman who has been drinking smells not only of brandy, but of something else. There is, in fact, a nasty, fetid odor, which is the result of imperfectly oxidized refuse matter as well as of the spirit itself. And it is only those who never contaminate their breath with alcohol who really perceive the extent to which those who drink make themselves disagreeable in this respect. It is very much like eating onions. Persons who have been eating onions do not smell others who have been eating them, while persons who do not eat onions smell others who have been eating them. I think some of our temperance friends may be pardoned for the susceptibility which they display upon this question, when you consider the extent to which their noses are annoyed by the odors coming from those persons who drink. When more alcohol is taken than the lungs can eliminate, it is passed on into the general circulation, and gets into the brain. Those of you who take a glass of spirit

occasionally know how rapidly a feeling of lightness comes over the brain. This takes place in sixty seconds, and all the alcohol which is not eliminated at the last point I have mentioned, the lungs, has then to circulate through the brain and through the muscles of the body until the action of the liver and lungs, reinforced by the action of the skin and kidneys, will eliminate the alcohol from the body; and that is the process which goes on until the drunken man has exhaled all that which was in him, just as the sponge will get dry when the water evaporates out of it. You may ask what evidence there is of this. I simply appeal to all those of you who have noses and eyes. Those of you who have noses must be aware that at any rate a large part of the alcohol a man takes leaves the body again just as it went into him; and if that be so, you know that that which comes out of the body without decomposition cannot have served as food, because it has not been decomposed. You will ask me whether that holds good as to the whole of the alcohol a man takes. I do not think it does. It is my impression that part of the alcohol is decomposed in the body. The extent to which alcohol is decomposed is really a difficult question. One might think that, if you could warm a drunken man up gently, you might make another man drunk by the liquor which would exhale from him; but it would be very difficult to perform experiments of that kind, and it would require a good deal of time. Medical men have been disputing over



this matter for the last twenty years, and I do not think they have come to a definite conclusion upon it. But we know that some part of the alcohol leaves the body as it went into it; we can demonstrate that by our senses in seeing the exhalations from the skin. If I had taken a table-spoonful of brandy two hours ago, although you might not be able to smell it coming out in breath, if I were to put my arm into an india-rubber bag, the bag having two tubes, one attached to the bellows and the other passing through a chemical solution of potash and sulphuric acid, we could demonstrate the alcohol passing through in the current of air which would be blown through that solution. It is very difficult to say precisely how much passes out; but granting that two-thirds of the alcohol is oxidized in the body in that process, that to that extent it serves as food, could we then say that alcohol is innocent in relation to the tissues of the body? You know it is not. You know that it damages the stomach, sears the liver, injures the lungs, weakens the muscles, and impairs all the excreting organs which have to get rid of it; in fact, that it corrodes and spoils every part of the body where it passes through and where it goes out. Those are facts that any of your eminent physicians in New York will tell you just as definitely, unequivocally, and positively as I tell you, if you will only ask them when you see them. They are facts about which there is no dispute. If I have given you a fair definition of food, alcohol



does not come under that category. If you were a political economist, you would want to know whether you got value for your money. Is alcohol cheap food? The utmost possible feeding power of alcohol cannot exceed that out of which the materials were made. That follows as a logical necessity. Alcohol is made from sugar. A pound of cane-sugar will yield rather more than half its weight of alcohol; a pound of alcohol cannot contain more food-power or force, therefore, than would be contained in two pounds of sugar. Now, what is the price of two pounds of sugar and one pound of alcohol? If you were to take the cost of alcohol as you get it in beer, or wine, or spirits, you would find that you could buy as much food in the shape of beef-suet, or oatmeal, or beans, or any other simple, harmless, proper food, for one cent as you could buy in the shape of alcohol for fifteen cents. If that be so, there must be some overwhelming reason why political economists should resort to the use of alcohol as a food. It is out of that margin that our "religious" brewers and distillers get so wealthy. They are not so religious on this side of the Atlantic as they are on the other. There they rub shoulders with the clergy, and give their paltry five pounds to support schools where the children of drunkards, made so by them, are cared for, and in order that their names may figure among respectable people. I should like to see their five-pound notes sent back to them. We are in a terrible condition in that respect.

We excel you in our gin-shops. From what I have seen in New York, your drygoods, jewelry, and apothecary stores, and dwelling-houses are finer than ours; but our gin-shops are much more elegant than yours. The brewers and distillers really hold all these houses within their own grasp, for they are mortgaged for two-thirds of the cost, the tenant finding one-third of the money. He is bound to buy his liquor at a fixed price; and as soon as he is unfortunate and sinks his capital, he is turned remorselessly into the street, while the wealthy brewer builds churches and associates with our best men, drawing the proceeds of this nefarious trade and sucking the blood of the people of our country without soiling his fingers or straining his lips. That is the sort of thing we have. I do not know how it is with you, but the position which the great brewers and distillers have secured on our side of the water is one of the worst forms of slavery I know of. Here I did not see liquor on the tables. I did not witness the same kind of thing at all that we see there. I could not go into one house in twenty in England at an ordinary evening reception or to a dinner-party among my own circle of personal friends and meet another person who was a total abstainer. Yet among the higher and wealthier classes of society in London we have a very large number of earnest, thinking men who are interested in the subject of temperance; still the laborers in this reform belong chiefly to the lower classes, headed and aided by

earnest, good men in the higher classes, but they, I am sorry to say, are few and far between. We have not been indebted much to our clergy in this matter, who ought to be the leaders of the people; and I am sorry to say that our medical men have not seen the importance of this matter as some of us have viewed it. This is a question that you must think out and understand for yourselves, and I believe that these are the sort of arguments which should be adduced in dealing with the subject. The evil of intemperance is not to be met by the mere denunciation of the evils of drunkenness, upon which we are all agreed; but we need to ask ourselves what alcohol does to us, how it can be useful to us in health, in sickness, in trouble and suffering, and why it is that we take it. I do not believe there is any virtue in being a total abstainer. I claim none for myself; I am a total abstainer simply because I am convinced that I am a better and happier man as a total abstainer than when I used to take a glass of wine occasionally; and if I was not convinced of that I would not be a total abstainer. I do not believe that this is one of the questions in which the religious argument will help you much. I believe that the religious argument will help you to this extent, that it will form a sledge-hammer to drive you on to anything which you clearly see to be your duty; but the question whether it is your duty to take these things or not to take them must depend upon the conviction in your own mind. If you do not see clearly that physiologi-

cally the use of alcoholic liquors is a mistake, your total abstinence and self-sacrifice for somebody else's benefit are not worth a rush ; and, so far as I can see, total abstinence upon that platform has done nothing but retard the movement. I have seen clergymen become total abstainers on that basis, and when something happens to them they must take a little beer or wine. What can they do? A man's duty is to take those things if they will help him to do his duty to his family, to himself, and to the society in which he moves. But for my part, I am here to-night to advocate abstinence from the use of alcohol, simply because I have derived so much benefit myself that I am anxious to do anything to persuade others to do that which I find has been of great benefit to me—abstinence from that which I believe to be the greatest curse that we now have to contend with, and which is undermining the very foundations of our society. Whether we are to adopt the theory of some philosophers and let the fools perish out of the land, as they will do under the influence of the drinking system, and let the land be inherited by those whose good sense will enable them to abstain from these things—whether that is the only recourse which philanthropists are to have on this question I do not know ; I cannot reconcile my mind to any such theory ; but, unless we are to have some such theory as that for the mind to rest upon, we must do our best to stem this torrent. If any of us here to-night take these things, I do submit that we are bound to

have a clear reason for using that out of which so much evil grows. I am very much obliged to you for listening to me so long.

Dr. Edmunds was loudly applauded on taking his seat.

At its conclusion, Mr. A. M. Powell said :

“MR. PRESIDENT: I rise to move a vote of thanks to Dr. Edmunds for his deeply interesting and very able and profound address this evening; and permit me to add that I feel that we are placed under a heavy debt of obligation to him for presenting the subject as he has done, in the light of the foundation principle that alcohol, against which, sir, the Society you represent is waging warfare throughout the country, is inherently inimical to the welfare of mankind. We are here in the midst of a struggle which rages from one end of the country to the other. These empty seats to-night are no criterion for our friend from abroad to judge by. We stand to-day on the threshold of an ‘irrepressible conflict’ in this country, destined to shake it as the one which has gone before has shaken it for its resurrection to a new and higher life. I for one feel profoundly grateful to our friend that he comes here in this period, but a few months distant from the time in which we were listening from the platform, from physicians, from the pulpits of clergymen, and reading in our leading journals, day after day, arguments and pleas of one kind and another in behalf of the moderate use of alcoholic beverages. Your visit, sir, is a godsend to us on this side of

the Atlantic at this time. You cannot as fully as some of us who are engaged in this conflict understand the full meaning, scope, and significance of such an address as you have given us to-night, which from the pencils of these reporters will go broadcast over the country. At Albany, only yesterday, was assembled a convention referred to by the President in his opening remarks. It is significant, if you have noted their proceedings, that, when there came before that body of liquor-dealers a proposition that they should recommend to the Legislature an excise law for next winter, it was voted down. They are not disposed to grant, at this stage of the conflict, that the Government of this country has any right to put restrictions on their traffic. Provided the argument of our friend is not sound, I stand with the liquor-men, and claim with them that Government has no right whatever to interfere with the business any more than with yours or any other merchant in this city. My argument against those men is that their business is one utterly at warfare with the interests of society ; and if your argument is true, and we are right in the position we assume, we shall go to yonder Legislature and demand of those sitting in legislative chairs that they give us next winter a law absolutely prohibiting traffic in alcoholic beverages throughout the State of New York. It is either a good or a bad thing. If it is a good thing, then it should have the benefits of protection and the encouragement of the Government within reasonable limits. If



it is the bad thing the able address of this evening has shown it conclusively to be, then I hold it to be the duty of every good citizen and every man who claims to be a Christian, whether in the pulpit or elsewhere, to make common cause and try, if possible, to rescue our land from the devastation of this shocking traffic. While we have been sitting here in rapt attention listening to this address, the poisoning process has been going on round about us, and before the words of this address are in type at yonder printing-office, in type also undoubtedly will be a dozen cases of assault and, it may be, murder, stimulated and generated by this same maddening alcoholic poison. We cannot, then, stop to educate all the people up to the clear perception of all these fine admirable distinctions which our friend has given us. We must appeal to the suffering nation; and in the spirit of those heroic Christian women who stirred our country from one end to the other a few months ago, and who are banding together again, I am glad to say, to renew again in the spirit of prayer and religious consecration their warfare against this demon alcohol—in that spirit all should make common cause and see to it that the issue is made up definitely; and that if alcohol be the enemy of the country, it be put under the ban of law now, henceforth, and for ever, and an opinion generated to make that law effective. Let me, then, for myself, and in behalf of the meeting, tender through you to Dr. Edmunds hearty thanks for the efficient aid he has given us by putting forth

the foundation upon which we stand and labor so clearly and so convincingly to-night."

The President, Mr. Dodge, put the motion, which was carried unanimously. He said:

"I am sure this meeting fully appreciates the address which you [addressing himself to Dr. Edmunds] have made to us to-night. We shall not forget it in our future labors. I hope we shall go home to do something for this great cause. The meeting is now adjourned."

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